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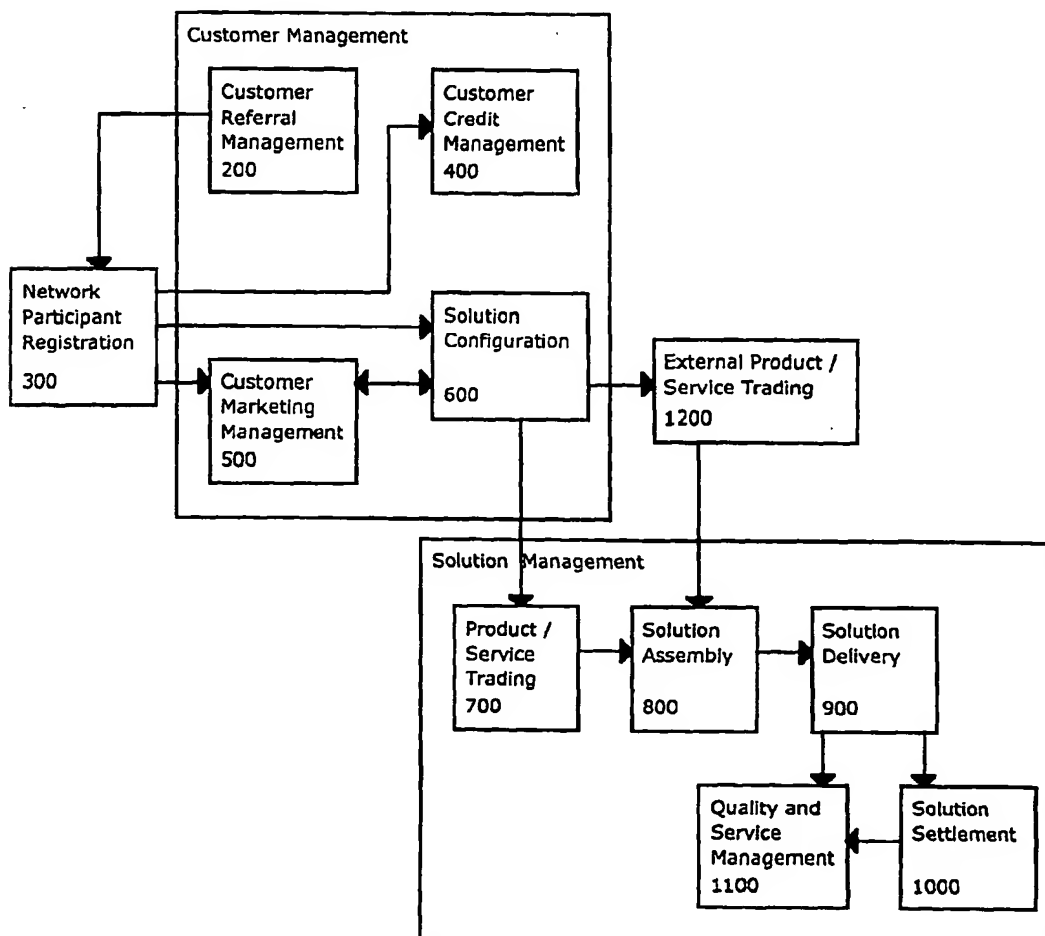
(19) **United States**(12) **Patent Application Publication**
McCormick(10) Pub. No.: **US 2002/0040352 A1**(43) Pub. Date: **Apr. 4, 2002**(54) **METHOD AND SYSTEM FOR PRODUCING
AN ELECTRONIC BUSINESS NETWORK**

(52) U.S. Cl. 705/80

(76) Inventor: **Eamonn J. McCormick, South
Pasadena, CA (US)**(57) **ABSTRACT**

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An electronic commerce network that facilitates the exchange of goods and services is described that includes configurations for physically implementing the system and data structures for logically implementing the method. The physical components of the system include a wide area network, a message bus, data channels and system connectors. The logical components of the system include system software, client application software, databases and an event coordinator/workflow processor. Functions of the system include business network registration, user registration, definition of roles, assignment of roles to business networks and user registrants, definition of logical products, definition of physical products, identification of the goods needed by a participant, identification of the goods offered by a participant and the brokering of a solution that takes into account the needs of one participant and the offer of another participant.

(21) Appl. No.: **09/895,034**(22) Filed: **Jun. 29, 2001****Related U.S. Application Data**(63) Non-provisional of provisional application No.
60/215,124, filed on Jun. 29, 2000.**Publication Classification**(51) Int. Cl.⁷ **G06F 17/60**

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TITLE: Method and system for producing an electronic business network

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Summary of Invention Paragraph - BSTX (5):

[0005] When we refer to business networks or inter-party applications, we assume that a party has internal, task specific applications that they would like to use for interacting with the internal applications of another party. For example, a manufacturer of goods may have an internal system that is used for tracking and ordering materials. A supplier or materials has an internal system for receiving and tracking orders. A third party providing transportation has yet another system that coordinates shipping of materials from the supplier to the manufacturer. For the manufacturer to receive materials, they must submit an order to the internal system for tracking and notify the supplier of the desired order. The supplier must in turn enter the order into their system and create a purchase order for transportation of the ordered materials. Each must access a separate system to complete their task.

Summary of Invention Paragraph - BSTX (8):

[0008] The emergence of the World Wide Web on the Internet increased the ability to integrate business applications. However, the short falls of the web-oriented approach to integration have become evident. Web servers, instead of private network servers, do not solve the fundamental issue of how to integrate networks of parties efficiently and comprehensively.

Summary of Invention Paragraph - BSTX (39):

[0038] Participants in the BVN.TM. system have several major types of activities they can perform, including: making direct requests for services using Elementary Business Process ("EBP") requests, such as log-on, log-off, update network participant, submit to trading, submit offer to customer and retrieve catalog prices; retrieving personal information from their user channels; listening in and retrieving broadcast messages; participating in inter-party messaging; retrieving messages no longer available on broadcast or on the user channels; and publishing on broadcast channels (if authorized).

Summary of Invention Paragraph - BSTX (60):

[0059] In addition to the above, the BVN.TM. system is designed to interact with third-party applications. These applications may include, but are not limited to, back office applications, such as general ledger, HR and payroll; market intelligence applications; and catalog applications.

Detail Description Paragraph - DETX (11):

[0117] A Customer 2025 interacts with a Solution Broker 2030 to specify their needs and **purchase** products and services that satisfy those needs, via a solution, from a Customer Manager 2020. Customers 2025 can also be referred to a BVN.TM. system via a Customer Referral Provider 2035.

Detail Description Paragraph - DETX (46):

[0152] Elementary Business Process applications 5002 respond to requests to execute discrete commands. The EBP application provides users with a mechanism for executing business transactions on the business network by initiating an EBP request. Some sample EBP requests are reserve plane ticket, **purchase** plane ticket, update **catalog**, create **catalog** product, activate **catalog** product, submit product to trading, apply service provider filter and reject counteroffer.

Detail Description Paragraph - DETX (102):

[0208] Reference Data Change 6301. There is a change of state in some reference data in the application that requires publishing to the network. For example if a price changes on a **catalog** item, the trading partners need to be alerted.

Detail Description Paragraph - DETX (186):

[0292] Format Role Broadcast Event 6705. The EBP application formats a broadcast event for publishing to a role broadcast channel. As a result of processing the EBP event, there may be a necessity to generate a broadcast event. For example if the price changes on an item in the **catalog**, all parties in the role retailers who subscribe to the channel "manufacturer price changes" would be notified once the price change were posted on the "manufacturer price changes channel". Similarly new mortgage applications would be posted on the "mortgages" channel once a new mortgage was "submitted to trading", via a trading EBP.

Detail Description Paragraph - DETX (281):

[0387] The creation of an agreement between Customer Manager 2020 and Customer 2025 describing the credit extended to Customer 2025 when making solution **purchases**, is performed in Establish Credit Term Agreement 410.

Detail Description Paragraph - DETX (293):

[0399] Other incentive programs may be offered either immediately or after Customer Solution **purchases**. For example, incentive programs based on demographic information or products selected can be offered immediately, while very focused programs may only be offered after initial Customer Solution **purchases** of a specific type.

Detail Description Paragraph - DETX (294):

[0400] The customer groups (via Party Role Customer Group), geographic locations (via Party Role Location), and/or past **purchases** associated with a Customer 2025 (via Party Role Solution and Solution Product) are analyzed to "intelligently" offer specific incentive programs to the Customer 2025 (via

Party Role Incentive Program).

Detail Description Paragraph - DETX (295):

[0401] Upon completion of a Solution for a Customer 2025, Record Customer Purchase Portfolio 520, updates the Customer's 2025 portfolio with information regarding the purchased products and/or services to assist in providing future (customized) total customer management services. (Related sub-processes are Record/Update Customer Marketing Profile Info.)

Detail Description Paragraph - DETX (314):

[0420] At Select Physical Product from Catalog 610 a "physical" product (SKU) is selected from a product catalog, based on search results.

Detail Description Paragraph - DETX (315):

[0421] Product is created as a "stub" product within the BVN.TM. system that represents the physical product selected from a product catalog. An internal Product ID is assigned to the physical product with a cross-reference to the external Product ID.

Detail Description Paragraph - DETX (317):

[0423] At Specify Product Catalog Filters 612 search criteria are entered to retrieve products that meet desired criteria.

Detail Description Paragraph - DETX (319):

[0425] At Search Product Catalog/Return Results 614 product catalog search results are reviewed to determine desirability.

Detail Description Paragraph - DETX (320):

[0426] Product Catalog items are read so that they can be reviewed.

Detail Description Paragraph - DETX (321):

[0427] At Reserve Physical Products 616 products are selected from a product catalog.

Detail Description Paragraph - DETX (322):

[0428] Creates "customized" versions of selected catalog products and links them to the customer, via Party Role Product.

Detail Description Paragraph - DETX (323):

[0429] At Accept Predefined Physical Product Terms 618 acceptance of the off-the-shelf terms associated with the purchase of a product from a catalog as-is.

Detail Description Paragraph - DETX (325):

[0431] Create Customized Physical Product Terms 620 solution-specific product terms are created to override standard product terms for a catalog product.

Detail Description Paragraph - DETX (327):

[0433] At Create Customer Needs Solution 625, the creation of a Solution which serves the purpose of "bundling" the Customer's Customized Logical Products and/or physical products (selected from a product catalog) that can be traded within the Trading Markets. Also, all appropriate Parties (within their respective Roles) are linked to the Solution, for example, the Customer 2025, Solution Broker 2030, Customer Manager 2020, and Customer Referral Provider 2035 (if applicable).

Detail Description Paragraph - DETX (380):

[0486] At Assign Consumer to Customer Group Purchase 675, BVN.TM. system Customers 2025 are assigned to Customer Group "group" purchases (in the Role of "Consumer") to facilitate the trading of a bulk Logical Product. It is anticipated that Customers 2025 will receive better pricing when they participate in group purchasing due to the potential for volume discounts from Service Providers 2045.

Detail Description Paragraph - DETX (383):

[0489] Product is updated to increment the "quantity" each time a consumer agrees to participate in the group purchase.

Detail Description Paragraph - DETX (384):

[0490] At Specify Consumer Information for Customer Group Purchase 680, the specification of additional information by Consumers (individual participants in a Customer Group purchase) required for the Customer Group purchase.

Detail Description Paragraph - DETX (503):

[0609] If the Customer 2025 did not make any up front purchase commitments and all the Solution's Logical Products were accepted by Service Providers 2045, the Customer 2025 will have the choice of whether or not to accept the Solution and proceed with the 25 Solution delivery phase. Partial Solutions can be presented if not all of the Customer's 2025 product needs were satisfied during trading.

Detail Description Paragraph - DETX (513):

[0619] If the Customer 2025 did not make any up front purchase commitments (i.e., via firm price option) and all the Solution's Products were NOT accepted by Service Providers 2045, the Customer 2025 can accept the partial Solution (if feasible).

Detail Description Paragraph - DETX (662):

[0768] The Solution's "Forward Market" charges are later reconciled with "Real Time Market" charges, such as a late fee.

Detail Description Paragraph - DETX (667):

[0773] A Financial Transaction is created for the Real-time Market adjustment (e.g., "late fee") owed by a Service Provider 2045 and linked to the Product, via Product Financial Transaction.

Detail Description Paragraph - DETX (674):

[0780] The "Forward Market" charges, such as late fees that may occur during Solution delivery, are reconciled.

Detail Description Paragraph - DETX (683):

[0789] Financial Transaction Relationship is created to link customer discounts (real-time Payment Items from late fees) to forward market and real-time market Bill Items, if applicable.

Detail Description Paragraph - DETX (700):

[0806] At Issue Customer Credit 1045, the Customer 2025 receives credits towards the future purchase of products and services if they prepaid for a Solution and service commitments were not met during Solution delivery.

Detail Description Paragraph - DETX (703):

[0809] Party Role Financial Transaction is created to link the Real-time Market adjustment (e.g., "late fee") payment item to the Customer, independent of any Solution.

Detail Description Paragraph - DETX (739):

[0845] The Business Value Network's community members can connect to the BVN.TM. system back-end systems that facilitate their transactions using a versatile array of technology options. The technologies employed by these network parties in the BVN's external environment range from telephony devices and web-based thin clients to full-strength external applications. Standard web browsers and related browser applications such as palm-top or set-top browsers serve as the most basic means of interfacing with the BVN. When required, community participants who are "away from the web" can use telephony technologies such as telephones, fax, pagers, voice mail (or internet phones on the web) to communicate with the BVN# system using the BVN.TM. system message API. Larger entities can interact directly with the network by integrating their applications into the BVN.TM. system via the XML enabled "BVN.TM. Connector" interface. In cases where there is an overriding need to integrate either a pre-existing or industry standard external application protocol such as EDI, the BVN# system can accommodate non-standard interfaces.

Detail Description Paragraph - DETX (758):

[0864] The BVN# system preferred embodiment allows for inclusion of third-party value added applications that may be required by the collaborative e-business community. These third-party applications may include among other things, catalog applications for BVNs that require digital catalogs and back office applications to support HR and general ledger functionality.

Detail Description Paragraph - DETX (777):

[0883] Party Role Financial Transaction 8: Party Role Financial Transaction represents the relationship between a Party Role instance and a Financial Transaction instance. The nature of the participation in the relationship is also described. This entity relates participants in specific Solutions to the financial transactions they're involved in due to the Solution (at the Solution- or product within Solution-level). Another use of this entity is for

Solution-independent refunds to Customers (from service variances (assess late fee) on prepaid Solutions). Also, fees such as yearly membership fees for network participants and Network Manager fees may be represented.

Detail Description Paragraph - DETX (799):

[0905] This entity is modeled at a high level. Additional "Terms and Conditions"-related entities might need to be added within an actual implementation to explicitly cite the terms of a contract between two parties.